

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: ) Art Unit:  
FOGH, et al. )  
Appl. No.: 10/588,082 ) Examiner:  
Filed: July 31, 2006 ) Washington, D.C.  
For: PRODUCTION AND PURIFICATION )  
OF RECOMBINANT ARYLSULFATASE ) Docket No.: FOGH=5A  
A ) Confirmation No.: 4018

RESPONSE TO "SEQUENCE LISTING" REQUIREMENT

U.S. Patent and Trademark Office  
Customer Service Window  
Randolph Building, Mail Stop Missing Parts  
401 Dulany Street  
Alexandria, VA 22314

Sir:

REMARKS

1. Applicants hereby submit the following:
  - [ ] a paper copy of a "Sequence Listing", complying with §1.821(c), to be incorporated into the specification as directed above;
  - [ ] an amendment to the paper copy of the "Sequence Listing" submitted on , the amendment being in the form of substitute sheets;
  - [XX] the Sequence Listing in computer readable form, complying with §1.821(e) and §1.824, including, if an amendment to the paper copy is submitted, all previously submitted data with the amendment incorporated therein;
  - [ ] a substitute computer readable form to replace one found to be damaged or unreadable.

[ ] The computer readable form in this application no. 09/... is identical with that filed on .... [date sequence was filed] in application no. 09/ , filed [filing date]. In accordance with 37 C.F.R. §1.821(e), please use the [first-filed, last-filed or only, whichever is applicable] computer readable form filed in that application as the computer readable form for the instant application. It is understood that the Patent and Trademark Office will make the necessary change in application number and filing date for the instant application. A paper copy of the Sequence Listing is [included in the originally-filed specification of the instant application, included in a separately filed preliminary amendment for incorporation into the specification, whichever is applicable].

2. The description is believed to be in compliance with §1.821(d) .

3. The undersigned attorney or agent hereby states as follows:

- (a) this submission does not include new matter [§1.821(g)];
- (b) the contents of the paper copy (as amended, if applicable) and the computer readable form of the Sequence Listing, are the same [§1.821(f) and §1.825(b)];
- (c) if the paper copy has been amended, the amendment is supported by the specification and does not include new matter [§1.825(a)]; and
- (d) if the computer readable form submitted herewith is

a substitute for a form found upon receipt by the PTO to be damaged or unreadable, that the substitute data is identical to that originally filed [§1.825(d)].

4. Under U.S. rules, each sequence must be classified in <213> as an "Artificial Sequence", a sequence of "Unknown" origin, or a sequence originating in a particular organism, identified by its scientific name.

Neither the rules nor the MPEP clarify the nature of the relationship which must exist between a listed sequence and an organism for that organism to be identified as the origin of the sequence under <213>.

Hence, counsel may choose to identify a listed sequence as associated with a particular organism even though that sequence does not occur in nature by itself in that organism (it may be, e.g., an epitopic fragment of a naturally occurring protein, or a cDNA of a naturally occurring mRNA, or even a substitution mutant of a naturally occurring sequence). Hence, the identification of an organism in <213> should not be construed as an admission that the sequence *per se* occurs in nature in said organism.

Similarly, designation of a sequence as "artificial" should not be construed as a representation that the sequence has no association with any organism. For example, a primer or probe may be designated as "artificial" even though it is necessarily complementary to some target sequence, which may occur in nature. Or an "artificial" sequence may be a substitution mutant of a natural sequence, or a chimera of two or more natural sequences, or a cDNA (i.e., intron-free sequence) corresponding to an intron-containing gene, or

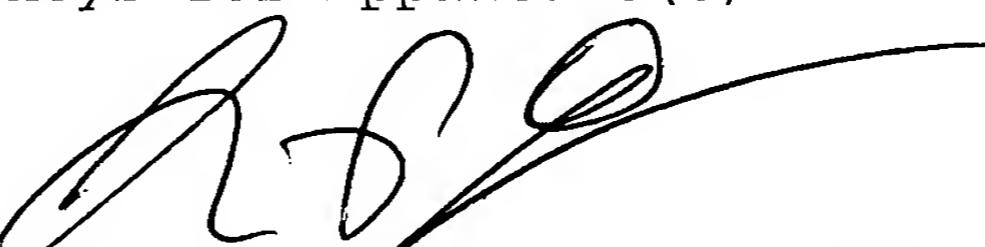
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otherwise a fragment of a natural sequence.

The Examiner should be able to judge the relationship of the enumerated sequences to natural sequences by giving full consideration to the specification, the art cited therein, any further art cited in an IDS, and the results of his or her sequence search against a database containing known natural sequences.

Respectfully submitted,

BROWDY AND NEIMARK, P.L.L.C.  
Attorneys for Applicant(s)

By:   
Iver P. Cooper  
Registration No. 28,005

IPC:lms  
624 Ninth Street, N.W.  
Washington, D.C. 20001  
Telephone No.: (202) 628-5197  
Facsimile No.: (202) 737-3528  
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